

Applicant : Kazuhiko Mori
Appln. No. : 09/765,221
Page : 9

REMARKS

With this reply, claims 1-29 remain present in this application, all of which have been rejected. In the present Office Action, claims 1-14 were rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter; and claims 1-29 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,093,794 to Howie et al. (hereinafter Howie). Applicant has amended claims 1, 15 and 29 for clarification.

With respect to the rejection of claims 1-14 under 35 U.S.C. §101, Applicant respectfully submits that claims 1-14 are directed toward statutory subject matter, i.e., a process, which is one of the four categories of inventions that Congress deemed to be appropriate subject matter for a patent. Furthermore, Applicant submits that under *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, the proper test for a §101 rejection is whether the invention, as claimed, produces a useful concrete and tangible result. As is clearly set forth in Applicant's amended independent claim 1, content information, work schedule information, work progress information and change order information are received and then provided, when requested, to an authorized party. Thus, Applicant respectfully submits that claims 1-14 are directed toward statutory subject matter under 35 U.S.C. §101.

With respect to the §103(a) rejections, at the outset, Applicant notes that Howie discloses a shop scheduling system, referred to as a Cooperative Scheduling System (CSS), in which a central routine, i.e., a Work Order Manager (WOM), interacts with a set of subroutines, i.e., resource brokers (BROs), that represent shop resources comprising one or more machines. The purpose of the CSS is to set a planned schedule (allowing for finite shop capacity at bottlenecks) in a planning mode. In an operational mode, the CSS corrects and modifies the schedule to accommodate for inevitable delays, e.g., machine breakdowns, changes in priority. In the planning mode, the CSS produces an estimated target date for each work order (and operation within the work order) and feeds those dates to a work order tracking system. The philosophy

Applicant : Kazuhiko Mori
Appln. No. : 09/765,221
Page : 10

of the CSS is that throughput should be throttled by the most critical shop resources. Thus, in the planning mode, the CSS uses this assumption to constrain schedules by identifying the critical shop resources and scheduling all routes that pass through them first. Time windows, in an initial analysis, are transmitted to the BRO, which returns at least one bid for each step. A bid is a target start and complete time within the window set by the WOM.

In the operational mode, the CSS uses a weighted tardiness measure, established in the planning mode, to support decisions in the short-term. Two types of decisions that are supported are releasing decisions and reacting decisions. The releasing decisions answer the question: what job should be released next to the work center? The planning mode produces a list of work predicted for each work center. At execution time, this list is sequenced according to the weighted tardiness measure. Reacting decisions are made when new information affecting the planned schedule is received or when assumptions have changed. Most reacting decisions involve reordering the list of work to be done in the best way, which is measured according to the weighted tardiness measure. The priority decisions as to which of the waiting jobs is done first is made by the use of the weighted tardiness function, which computes for each waiting job, its completion date and selects the job that will increase the total delay in passing through the shop by the least amount. A time map, which carries the work order scheduling information, is updated to reflect changing circumstances and may be accessed by an operator, such as a shop manager and/or a work center foreman, to display current information and to answer "what if" questions that show the consequences of alternative actions.

With reference to Howie column 6, lines 1-37, the WOM starts out with an order from a customer for a part or parts. It then accesses a database to pull out the standard list of tasks and processes required for the part or accept, as input, the list of processes and associates them with standard times. The WOM then sends out calls, which are a set of parameters, to relevant BROs, which handle the machines that can

Applicant : Kazuhiko Mori
Appln. No. : 09/765,221
Page : 11

perform the operations on the standard list. These parameters specify the desired start date and finish date of each operation and also the standard process time, which the operation is assumed to take. These dates are set with large enough margins so there is a reasonable chance of finding an open slot on the machine within that window. Each BRO then searches the database to find the parameters of the part, such as the physical size, etc., to select which of the machines it controls that can be used. The BRO then scans the time reservation list for each machine to find at least one open machine window, either on one machine or more than one machine. The BRO formulates bids that contain the proposed start and finish times for the operation and the indication of the cost of this option, in terms of weighted tardiness. The BRO selects bid windows to be returned to the WOM according to a local strategy. The local strategy is designed to minimize the weighted tardiness function, which measures the impact of delay of this part on the total shop throughput. The WOM then scans the list of bids from each broker and selects a set of award windows, one window for each operation that will do the job. The selection is governed by a global strategy implemented by the WOM, which is designed to get parts out on time.

With reference to Howie column 7, lines 1-12, the Howie system is capable of having the WOM instruct the BROs, some or all of them, to drop low-priority jobs from their schedule and then to reschedule the higher-priority jobs. When an operational event, such as a machine breakdown, sick machinist, etc., occurs, there are potentially hundreds of operations affected. The master scheduler directs work orders from the conflict set back into the CSS for automatic rescheduling or brings them to the attention of a shop manager.

In sum, Howie is directed to a system that attempts to maximize throughput of shop resources, while, at the same time, meeting assigned schedules. In contrast, Applicant's claimed subject matter, as is set forth in independent claims 1, 15 and 29, is directed to handling construction project information related to the construction of a building and providing the construction information to an authorized party, when

Applicant : Kazuhiko Mori
Appln. No. : 09/765,221
Page : 12

requested. While the Howie system determines what process steps are to be carried out by what machines on any given part, Howie is not directed to a system that receives content information related to the design of the part and that is then capable of receiving change order information directed to changes in the design of the part. Furthermore, the Howie system is not configured to interact with a customer for whom a part is being built.

At page 3, the Office Action states: "[i]t would have been obvious to one of ordinary skill in the art to provide construction information to an authorized user (the customer) so as to keep the customer apprised of the progress of the work." However, as noted above, Howie is not directed to a system that may be accessed by a customer. More specifically, as is noted at Howie column 4, the Howie system is accessed by a shop manager and/or a work center foreman and is not accessible to a customer. Furthermore, as noted above, Howie is directed to the scheduling of operations on a given part so as to not create a bottleneck on one or more resources in a given shop and is not directed to a system that allows a customer to track progress on a part during the manufacturing cycle.

The Office Action, at page 4, states: "Howie does not, however, teach allowing a client computer to access the system." The Office Action further states: "It would have been obvious to one of ordinary skill in the art to allow the customer to access the system to allow for access to the customer's file so the customer could track the work to avoid having the customer call the builder to ask for progress reports." However, Applicant submits that this rationale is solely based on hindsight, in view of Applicant's own disclosure, as Howie does not teach or suggest a customer accessible system.

With respect to claims 2 and 16, the Office Action, at page 4, states: "[i]t would have been obvious to one of ordinary skill in the art to modify the system as disclosed by Howie by requiring an identification number to access the system to avoid unauthorized access to the system." However, Applicant notes that the Examiner fails to cite any references that may be combined with Howie that would teach or suggest

Applicant : Kazuhiko Mori
Appln. No. : 09/765,221
Page : 13

the alleged features. Additionally, as noted above, the Howie system is not customer accessible.

With respect to claims 4 and 18, Applicant submits that the resource broker blocks are not profiles included within the project information of those doing the work. More specifically, as noted above, the resource brokers (BROs) are routines that schedule work for specific machines.

With respect to claims 5 and 23, Applicant submits that Howie does not disclose notifying a site superintendent (master scheduler), when work progress information is not received. More specifically, the master scheduler is a software routine that receives input from an external user, which then communicates with a number of other software routines, to perform job scheduling. Moreover, Howie Fig. 11 is a flow chart for a portion of the scheduling process operation that is performed by the solicit bids block of Fig. 9.

With respect to claims 6 and 20, the fact that owners of houses take pictures of a house in various stages of construction is irrelevant to Applicant's claimed subject matter, as the point of providing work process information, which includes at least one current image of the construction site in the building, is to detail changes in at least one of the building and construction sites that have occurred from at least one previous image. In this manner, as is disclosed in Applicant's specification, a homeowner can ascertain whether a previous function was performed properly.

With respect to claims 7 and 21, the fact that services may be paid for, when they are completed, is irrelevant to Applicant's claimed subject matter, as the claimed subject matter only authorizes payment to a subcontractor, after the subcontractor has fulfilled its obligation, when at least one current image validates that the subcontractor has furnished at least one of the contracted labor and contracted materials.

With respect to claims 8 and 22, Applicant fails to understand how it would be inherent that it would be verified that the authorized user received the requested information, as the computer would continue to attempt to provide the information if it

Applicant : Kazuhiko Mori
Appln. No. : 09/765,221
Page : 14

was not verified. That is, in general, a computer would transfer information and would not verify that the information was received.

With respect to claims 9 and 23, the fact that Howie discloses that a work schedule may be updated does not teach or suggest requesting updated construction project information from at least one of a general contractor and a site superintendent, when the required construction project information has not been received within a predetermined time period. More specifically, Howie is directed to a system that reallocates resources whenever a user changes a schedule and is not directed to a system that notifies the user of the system to input information if it has not been timely entered.

With respect to claims 10 and 24, the fact that a building purchaser may view a building under construction and the contractor or builder may be there does not teach or suggest a method/system that receives a building site inspection request from a building purchaser, provides the request to at least one of a general contractor or a site superintendent and coordinates a mutually acceptable time and date, between the parties, for a building site inspection.

With respect to claims 12 and 26, the Howie system does not disclose correcting a reported building associated problem. More specifically, as noted above, Howie is directed to a system that schedules or reschedules process work should a problem, such as a machine malfunction or a missing employee, occur.

With respect to claims 13 and 27, Applicant fails to understand how it would be inherent that construction project information would include the location information of a site superintendent at any particular given time. While the site superintendent is responsible for the overall job, the site superintendent may be located at any number of other sites or otherwise be disposed and/or be unavailable at any given time.

With respect to claims 14 and 28, both claims 14 and 28 recite that location information is provided by a portable telephone that is in the possession of at least one

Applicant : Kazuhiko Mori
Appln. No. : 09/765,221
Page : 15

of the general contractor, the site superintendent and the subcontractors and does not indicate that the location information is a contact number.

In sum, Applicant believes that the majority of the rejections are based upon impermissible hindsight, in view of Applicant's own disclosure, and further submits that the Howie system is not directed to a system that is customer accessible. For at least the reasons set forth above, Applicant respectfully submits that independent claims 1, 15 and 29 are allowable. Additionally, Applicant submits that claims 2-14 and 16-28 are allowable, for at least the reason that they depend upon allowable claims.

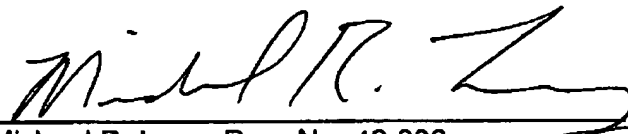
Applicant submits that this reply is fully responsive to the above-referenced Office Action.

CONCLUSION

For all of the foregoing reasons, Applicant respectfully submits that claims 1-29, as amended, are allowable. If the Examiner has any questions or comments with respect to this reply, the Examiner is invited to contact the undersigned at (616) 949-9610.

Respectfully submitted,

06-20-05
Date


Michael R. Long, Reg. No. 42 808
PRICE, HENEVELD, COOPER, DEWITT & LITTON, LLP
695 Kenmoor SE
P.O. Box 2567
Grand Rapids, Michigan 49501-2567
616/949-9610

MRL/saw